

Poster Session Program

Room 803	
A: Soil and Water	
P001	Crop Cultivation Activity Impacts Evaluation using Water-Energy-Food-Carbon-Water Quality Nexus Yoon PuReun•Kim Maga•Choi Jin-Yong•Hur Seung-Oh•Son Jeong-Woo
P002	Improved Water Efficiency of Paddy Farming through Alternate Wetting and Drying Irrigation in Central Taiwan Tsai Hsuan-Ju•Wu Pei-Jhen•Wu Dong-Hong•Lee Shin-Ruei
P003	Establishing Corn Crop Coefficients for Precision Irrigation in Sustainable Paddy Rotation Systems Lee Shin-Ruei
P004	Evaluation of Return Flow and Reuse Efficiency Using Water Cycle Simulation in Irrigation Canal Networks Lee Hyeon-Ji•Nam Won-ho•shin Ji-Hyeon
P005	Estimation of Discharge Amount After Using Water Curtain Water in Greenhouse Complexes During Winter Season Kim Sang Min
P006	Effect of Irrigation-Induced Distribution of Temperature and Nitrogen Concentration of Paddy Water on Rice Chalky Grain Yuta AMAKAWA•Kazuhiro NISHIDA•Tadashi TSUKAGUCHI•Keita KOBUCHI•Kazuya SHIRAISHI•Shuichiro YOSHIDA
P007	Methane gas emissions from meso-scale paddy soil columns affected by artificial macropore installation. Tanaka Nagatsuki•Mori Yasushi
P008	Development of a Climate-Resilient Paddy-Upland Crop Rotation Model: A Case Study of Baby Corn and Heat-Tolerant Rice in Subtropical Taiwan Sun Ping Wei•Li Charng Pei•Huang Li Han
P009	Effects of Lactobacillales Amendment and Soil Water Content on Carbon Dioxide and Methane Emissions in Paddy Soil Liyuan Chen•Kimihito Nakamura•Natsuki Nobe•Takanori Nagano
P010	The Effect of Soil Aggregation Forms to Water Content and Plant Biomass in Soil Columns Kento Tajiri•Yasushi Mori
P011	Molecular Characterization of Soil Organic Matter Using NMR and GC/MS in Relation to Total Carbon Content Horiuchi Moeri•Hayakawa Satoshi•Mori Yasushi
P012	Measurement of Guava Evapotranspiration in Southern Taiwan Gao Bi-Shuang•Hsieh Hung-Yeh•Syue Chien-Hui
P013	Determination of heat unit-based crop coefficient for rice in Taiwan Hou Ya-Ling•Wu Dong-Hong•Wu Pei-Jhen
P014	Optimizing Banana Cultivation with CROPWAT 8.0 and Drip Irrigation to Mitigate Water Competition in Paddy-Dominated Watersheds and Promote Climate-Resilient Agriculture Wang Wei-Chen•Chen Yu-Yi•Chen Hsueh-I•Syue Chien-Hui•Tsai Yao-Hsien•Lin Yung-Chou
P015	Detection of Initial Irrigation in Paddy Fields Using Remote Sensing Data for Monitoring Water Allocation in Traditional Irrigation System in Bali Wily Goldramijaya•Atiqotun Fitriyah•Fumi Okura•Tasuku Kato•Ni Nyoman Sulastri•I Wayan Tika•Sumiyati•Ida Ayu Gede Bintang Madrini•Mentari Kinasih
P016	Improving SWAT performance in a snow-dominated basin via a two-season precipitation lapse rate: Case study of the Tedoru River, Japan TABACARU GHEORGHE ALEXANDRU•Fujihara Yoichi
P017	High-resolution satellite monitoring of alpine snow patches for watershed water resource variability analysis Nonaka Ryoma•Fujihara Yoichi•Ogawa Hiroshi•Chono Shunsuke•Ichion Eiji
P018	The Impact of Irrigation on Carbon Storage in Tea Plantations: Insights from the Static Chamber Method Huang Yan-Ning•Liao Kuo-Wei
P019	XGBoost-Based Assessment of Groundwater Levels Influenced by Irrigation and Meteorological Factors Chen Hui Chih•Ling You Ting•Zhuang Wei Ya•Wang Wei Sheng
P020	Analysis of salinity dynamics in the estuary of the Red River, Northern Vietnam Inoue Keishi•Kimura Masaomi•Yoshikawa Natsuki•Matsuno Yutaka
P021	Effects of automated weed control robots on methane emissions from paddy fields in mountain areas of Northeast Japan Kato Chihiro•Nakamura Tetsuya•Ookawa Taiichiro
P022	A Critical Review of Flood Risk Assessment Methodologies: Applicability and Framework for Agricultural Landscape Under Climate Change Adisa Hammed Akinsoji•Kyung Sook Choi

P023	Field Analysis of Infiltration Properties Before and After Restoration of Terraced Paddy Fields in Northern Taiwan Huang Qun-Zhan•Hsu Shao-Yiu
P024	Impact on agricultural irrigation under the influence of climate change and adaptation strategies for stabilizing agricultural irrigation water supply Huang Ya-Zhen•Fan Chihhao
P025	Linking Reservoir Water Level with Lumped Models for Estimating Inflow to Agricultural Reservoirs Kang Seokhun•Song Junghun
P026	Effect of irrigation with high nitrogen concentration water on the horizontal distribution and temporal changes in nitrogen concentration in a paddy field Kobuchi Keita•Nishida Kazuhiro•Yoshida Shuichiro
P027	Effects of Rice Straw Management on Greenhouse Gas Emissions and Soil Nitrogen Dynamics in Rice Paddy Soil Wang Shan-Li•Kao Chuan-Fu
P028	Quantifying Absorbed Water via Matric Potential to Improve Dielectric Models Hashimura Makoto
P029	Estimation of short-term rainfall magnitude and intensity using forecast data based on artificial intelligence Kwak Jihye•Kim Jihye•Kim Sinae•Park Seongjae•An Jaeyoung•Park Seonjae•Park Suhwan•Kang Moon Seong
P030	Probabilistic estimation of future rainfall erosivity under climate change using sub-hourly disaggregation of daily rainfall in South Korea Kim Sinae•Park Suhwan•Kwak Jihye•An Jaeyoung•Park Seongjae•Park Seonjae•Kang Moon-Seong
P031	High-resolution measurements of methane flux from paddy field Natsuki Nobe•Kimihiro Nakamura•Liyuan Chen•Takanori Nagano
Room 812 B: Agricultural Facilities	
P040	Comparison of Drought Response Capacities Based on Water Resources Under Extreme Drought Conditions in South and North Korea Seo Jun-Yeong•Nam Won-Ho
P041	Flood Damage Assessment in an Agricultural Irrigation Area with Motorized Gate Application Kim Da Ye•Lee Gang Hoon•Lee Seung Wook
P042	Investigation into effects of aging degradation of rice husk envelope of subsurface drainage for paddy fields on water conductivity at entrance of drainpipe KAGEI Yuji•YOSHIDA Shuichiro•NISHIDA Kazuhiro
P043	Smart Agricultural Irrigation Enhances Management Efficiency Tsai, Ming-Dou
P044	A Study on Establishing Appropriate Hydrological Design Frequency Criteria for Agricultural Reservoirs So Euigeon•Yoo Seung-Hwan
P045	Post-earthquake Deformation Detection in Drainage Wells by UAV-LiDAR for Prevention of Secondary Disasters in Paddy Field Shibano Kazuma•Tanaka Hiromu•Inaba Kazunari•Suzuki Tetsuya
P046	Vulnerability Assessment of Agricultural Water Resources and Irrigation Reservoirs Using Multi-Model Ensembles Based on SSP Scenarios Kim Hayoung•Na Ra•Joo Donghyuk•Yoo Seung-Hwan•So Euigeon
P047	Estimation of Crack Width for Agricultural Infrastructure by Multimodal Approach with Point Cloud and Image Data Integration Tagami Keika•Tanaka Hiromu•Shibano Kazuma•Suzuki Tetsuya
P048	Estimation of irrigation water quality and the effects of abrasion and leaching on water quality kanehira Shusuke
P049	Development of Reservoir Operation Rules Using Machine Learning-Based Water Level Forecasting Yang Mi-Hye•Nam Won-Ho
P050	Performance evaluation of agricultural pipeline system based on TTBTs with artificial leakage Chiyoda Atsushi•Hagiwara Taiki•Takahashi Yuto•Tsubota Toma•Suematsu Kakutaro•Suzuki Tetsuya
P051	Non-Contact Detection of Irregular Vibrations in Pump Rotors using Infrared-Stress Method Suzuki Tetsuya•Oshima Keiichiro•Takahashi Yuto•Hagiwara Taiki
P052	Post-Earthquake Damage Assessment of Landslide Prevention Facilities by UAV-LiDAR Otaka Norihiro•Tanaka Hiromu•Shibano Kazuma•Fujimoto Yuji•Suzuki Tetsuya

Room 812	
C: Rural Planning and Ecosystem Services	
P060	Estimation of Parameters in a Water Front Advance Model for Large-Scale Paddy Fields Koshiyamma Naoko • Otsu Takeshi
P061	Effects of Land Use on Soil Microbial Community Composition and Predicted Nitrogen Metabolism in Paddy and Dry Fields Shiau Yo-Jin • Chen Ting-Kai • Jhang Syu-Ruei • Chen Yi-Ying • Chou Charles C.-K. • Lee Chia-Wei • Chen Wei-Nai • Chang Chih-Chung • Chiang Chih-Feng
P062	Farmers' Perceptions of Farmland and Preferences for Land Management in Irrigated Areas: A Case Study of the Rwamagana District Irrigation Scheme, Republic of Rwanda KINOSHITA Kodai • MATSUNO Yutaka • NDAYISHIMIYE Alfred
P063	Enhancing Sustainable Agricultural Water Management through Participatory Local Governance: A Case Study from Korea Kim Da Ye • Maeng Seung Jin • Lee Eun Ryeong • Lee Bong Kuk
P064	Climate Change and Adaptation in Coastal Agriculture: Impacts on Nutrient Cycling and Water Resources Chen Chi Wen • Chen Yu Yen • Wang Wei Sheng
P065	Hierarchical and Non-hierarchical Cluster Analysis of Standard Watersheds Considering Hydrology, Water Quality, and Aquatic Ecosystem in South Korea Wonjun Jeon • Yonggwan Lee • Jeehun Chung • Yongwon Kim • Seongjoon Kim
P066	Ecological Impact of Treated Effluent Irrigation in Rice Paddies: A Case Study on Aquatic Organisms Liu Chen-Wuing • Lee Jin-Jing • Chen Feng-Wen • Cho Yu-Chien • Chen Guan-Jia • Kuo Mei-Hwa
P067	Development of a practical numerical model for predicting paddy field dam effect based on the actual field condition Abe Takaaki • Koshiyama Naoko • Hotta Nobuyuki
P068	Quantitative PCR method to detect the invasive bitterling fish in agricultural channels using environmental DNA Moriuchi Kaito • Otsuki Kanoko • Hamada Mayuko • Taniguchi Rintaro • Sumida Takanari • Katsuhara Koki • Nakata Kazuyoshi
P069	Development of a Multi-Faceted Evaluation Framework for Agricultural Reservoir Clusters toward Sustainable Management Masaomi Kimura • Satoshi Watanabe • Keigo Noda • Yutaka Matsuno
P070	Effects of restoration methods on freshwater mussel distribution in the agricultural irrigation channels of Okayama City, western Japan Taniguchi Rintaro • Sato Moyu • Moriuchi Kaito • Katsuhara Koki • Takeyama Tomohiro • Nakata Kazuyoshi
Room 812	
D: Latest Smart Technologies	
P080	Improving Water Distribution and Reducing Labor in Hillside Irrigation Canals Using ICT Irrigation Devices Takeshita Shinichi • Pingkanon Maetawee
P081	Sentinel-2 Time-Series Analysis for Detection and Monitoring of Alternanthera philoxeroides Shinohara Kengo
P082	Groundwater Level Forecasting Based on Time Series Clustering and Transformer Chueh, Chia-Jung
P083	Water Stress Detection in Persimmon Cultivation Using A Pre-Trained Machine Learning Model Naoki Onishi • Atsushi Okayama • Yutaka Matsuno • Kuniomi Kimura
P084	Deep Learning-Based Estimation of Water Stress in Persimmon Trees for Data-Driven Irrigation Management Okayama Atsushi • Onishi Naoki • Kimura Masaomi • Sanada Rena • Matsuno Yutaka
P085	Fundamental Evaluation of Convolutional Neural Networks for Automatic Identification of Spider Mite Damage in Edible Roses (Rosa spp.) Rena Sanada • Honami Nakasuji • Atsushi Okayama • Munetaka Hosokawa • Masaomi Kimura • Yutaka Matsuno
P086	Effect of nighttime irrigation using automatic irrigation systems on preventing cold water damage of rice Nishida Kazuhiro • SHIRAISHI Kazuya • TSUKAGUCHI Tadashi • YOSHIDA Shuichiro • HIRAI Kazuyoshi • SUNAHASE Yuji
P087	Integrating Groundwater Forecasting and Climate Risk Mapping to Enhance Adaptive Water Management: A Case Study of Tainan, Taiwan Tsai Wen-Ping • Wang I-Hsuan • Tsang Pei-Ju
P088	Development of a Crop Yield Estimation Technique Based on Integrated Analysis of Hydrological and Growth Indicators in Paddy Fields Using SAR Imagery Chung Jeehun • Lee Yonggwan • Kim Yongwon • Jun Wonjun • Kim Seongjoon

P089	Integrated Application of Ultrafiltration and Fine Bubble Diffusion in a Hybrid Recirculating Aquaculture-Paddy Farming System
	Teuku Assiddiqi Devan • Setiawan Indra Budi
P090	Paddy Irrigation Tools developed on Farmers Viewpoint
	OZAWA Yoshihiro
P091	A Differentiable Two-Layer Energy Balance Model Coupled with a Residual Temporal Convolutional Network for Sparse-Observation Paddy Water Depth Inversion
	Xie Wenpeng • Kimura Masaomi • Li Hongmei • Tian Runze
P092	Analysis of Critical Input Features in LSTM-Based Inundation Forecasting Optimized by Multi-Objective Genetic Algorithms
	Jhong Bing-Chen • Chang Hsiang-Kuan • Chu Jung-Lien